REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed August 23, 2007. Upon entry of the amendments in this response, claims 45-62, 67 and 70-73 remain pending. In particular, Applicants amend claims 59 and 67. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I.   **Allowable Subject Matter**

Applicants appreciate the Examiner's indication that claims 67 and 70-73 would be allowable if amended to overcome the rejections under 35 U.S.C. § 112.

II.   **Rejections Under 35 U.S.C. §112**

The Office Action indicates that claim 67 stands rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. More specifically, the Office Action alleges the limitation of "the sequence" in line 5, "the port address", in line 6, and "the corresponding number" in line 7 as having "insufficient antecedent basis for [these] limitation[s] in the claim[s]." Applicants amend claim 67, as indicated above, and submit that claim 67, as amended, is allowable in view of 35 U.S.C. §112.

III.   **Rejections Under 35 U.S.C. §102**

A.   **Claim 45 is Allowable Over *Normile***

The Office Action indicates that claim 45 stands rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent Number 5,541,995 ("*Normile*"). Applicants respectfully traverse this rejection on the grounds that *Normile* does not disclose, teach, or suggest all of the claimed elements. More specifically, claim 45 recites (emphasis added):

45.   A method of encrypting multi-media data flow packets, comprising the

steps of:

receiving a series of multi-media data flow packets, each packet comprising a

sequence number;

storing the series of multi-media data flow packets in a jitter buffer;

re-sequencing the series of multi-media data flow packets into a pseudo-

random order; and

transmitting each multi-media data flow packet in the re-sequenced series

in the re-sequenced order.

Applicants respectfully submit that *Normile* fails to teach, disclose or suggest at least the
above-emphasized claim features. The Office Action alleges that the encryption disclosed by
Normile corresponds to "re-sequencing the series of multi-media data flow packets into a
pseudo-random order" as recited in claim 45. (*See* Office Action, pp. 2-3.) Applicants
respectfully disagree.

Applicants have examined *Normile* and find no discussion of <u>sequencing or re-
sequencing</u> disclosed as a method of encrypting data packets. In the Office Action (p. 3), the
Examiner cites the following text from the *Normile* reference (col. 4, line 29 to col. 5, line 4)
(emphasis added):

> Referring now to FIG. **2**, a block diagram of an encoding and decoding system in
> accordance with the present invention is shown. A transmitter **10** encodes plaintext data
> packets **12** to produce encoded data packets **14**. The function of transmitter **10** is to
> encode the plaintext data packets 12 in such a way that the information is usable only to a
> receiver having bona fide access to the data. SPlaintext [sic] data packets **12** are packets
> of digital information which may be readily understood by both a sender and a receiver
> and may also be readily understood by unauthorized third parties having access to the
> communication channel. Encoded data packets **14** are plaintext data packets **12** that have
> been encoded and are decipherable only by an authorized receiver. The transmitter
> comprises an encoding function generator **16** and an encoder **20**. The encoding function
> generator **16** generates encoding sequence packets **18** which are transmitted to the

encoder. **The encoder 20 combines the plaintext data packets 12 and the encoding sequence packets 18 in the encoder 20 preferably by an XOR function.** The encoding function introduces a sequence of numbers, codes or equations into the plaintext data packets **12**. **The combination of encoded sequence packets 18 and plaintext data packets 12 scrambles the plaintext data packets 12** so that they cannot be easily deciphered by an unauthorized receiver. **The scrambled plaintext data packets produced by the encoder are the encoded data packets 14.**

    The encoding function is accomplished by combining the plaintext data 12 with an encoding sequence 18 generated by an encoding function generator 16 within the transmitter 10. Examples of encoding functions are discussed with reference to FIGS. **7** and **8**, below. In FIG. **2**, a string of plaintext data is divided up into plaintext data packets **12** and transmitted in sequential order to the transmitter **10**. An encoding function generator **16** generates a sequence of numbers, codes or equations. The sequence is divided into encoding sequence packets **18**. Each encoding sequence packet **18** generated is at least as long as the longest plaintext data packet **12**. The encoding sequence packets **18** are transmitted to an encoder **20**. The encoder **20** preferably comprises a conventional exclusive-OR (XOR) gate. **To encode the data, the encoding sequence packets 18 and plaintext data packets 12 are combined in the encoder 20 and encoded data packets 14 are produced as a result.**

First, Applicants respectfully disagree that the term "encryption" as used in *Normile* corresponds to "re-sequencing." *Normile* appears to disclose conventional stream cipher encryption techniques by which input data packets are transformed into encrypted packets within an encoder by means of exclusive-OR (XOR) operations of the input data packets' data with encoding sequence packets, rather than by any method of encryption which involves the re-sequencing of the input data packets. Thus, *Normile* appears to disclose, at most, generating a sequence of pseudo-random numbers, rather than "re-sequencing the series of multi-media data flow packets into a pseudo-random order" order as recited in claim 45.

Next, even assuming, *arguendo*, that *Normile* does disclose receiving re-sequenced packets at a receiver, *Normile* does not disclose re-sequencing a series of received packets then <u>transmitting</u> the received packets in the re-sequenced order to the receiver.

The reception and reordering of re-sequenced encrypted packets is further disclosed where *Normile* recites (col. 5, line 41 to col. 6, line 12) (emphasis added):

As the encoded data packets **14 (C1…CN)** are being imported by the receiver **22**, the decoding function generator **24** produces decoding sequence packets **26 (S1…SN)** that are transmitted to the decoder **30**. As the first encoded data packet C1 is imported, the first encoding sequence packet S1 is generated and combined with the first encoded data packet C1 within the decoder **30**. **The process of combining a decoding sequence packet 26 with each encoded data packets 14 received, continues until all encoded data packets 14 are received and decoded**. The decoded data packets **28 (D1,D2…DN)** are stored in the memory **32** in accordance with its arranged position with respect to the sequential order of the decoded data packets. The decoded data packets **28** are then output as decoded communication **34**.

Where one of a sequential stream of encoded data packets **14** is missing, the decoding sequence packet **26** corresponding to the missing encoded data packet **14** is stored in the memory **32** in place of the target decoded data packet **28**. In the example shown in FIGS. 3(a), 3(b) and 3(c), **decoding sequence packet S1 is generated and combined with encoded data packet C1 to produce decoded data packet D1. Likewise, encoded data packet C2 is combined with decoding sequence packet S2 to produce decoded data packet D2**. Encoded data packet **C3**, however, is missing. Nevertheless, decoding sequence packet S3 is generated because the decoding sequence packets **26** must be generated in sequential order. Decoding sequence packet S3 is stored in the memory **32** in place of decoded sequence packet D3, as decoded sequence packet **D3 cannot yet be produced**. The decoding then continues as encoded data packet C4 is received and combined with decoding sequence packet S4.

When missing encoded data packet C3 is finally received, decoding sequence packet S3 is retrieved from memory 32 and combined with encoded data packet C3. The resulting decoded sequence packet **D3** is then stored in memory **32** in sequential order within the decoded data packet **28** stream and the decoded communication **34** is ready for export to the intended receiver.

Assuming, *arguendo*, that *Normile* discloses a network in which data packets travel on different paths (e.g., on a packet switching network) (col. 3, lines 16 – 18) and are received at a receiver from that network in a re-sequenced order, *Normile* does not disclose re-sequencing the data packets prior to exporting the individual data packets to the network, nor does *Normile* teach that the network is part of the transmitter (col. 5, lines 5-7). Reordering of the data packets received by the receiver is disclosed in *Normile* to be the result of independent path selection decisions made by the network as data packets are exported to it by the transmitter; it is not a feature of the encryption or decryption functions as disclosed.

Applicants do not disagree that the receiver must decode packets out of sequence after transmission if packets are received out of order, and also agree that the transmitter changes

the contents of the packets by encryption. However, neither of these features in the *Normile*

reference corresponds to the features of "re-sequencing the series of multi-media data flow

packets " and "transmitting each multi-media data flow packet in the re-sequenced series in the

re-sequenced order" as recited in claim 45.

For at least the reason that *Normile* fails to disclose, teach or suggest the above-recited

features, Applicants respectfully submit that *Normile* does not anticipate claim 45. Therefore,

Applicants request that the rejection of claim 45 be withdrawn.

B.   **Claim 52 is Allowable Over *Normile***

The Office Action indicates that claim 52 stands rejected under 35 U.S.C. §102(b) as

allegedly being anticipated by *Normile*. Applicants respectfully traverse this rejection on the

grounds that *Normile* does not disclose, teach, or suggest all of the claimed elements. More

specifically, claim 52 recites (emphasis added):

> 52.   A computer readable medium for encrypting multi-media data flow
> packets, the program for performing the steps of:
>> receiving a series of multi-media data flow packets;
>> storing the series of multi-media data flow packets in a jitter buffer;
>> **re-sequencing the series of multi-media data flow packets into a**
>> **pseudo-random order; and**
>> **transmitting each multi-media data flow packet in the re-sequenced**
>> **series in the re-sequenced order.**

Applicants respectfully submit that *Normile* fails to disclose, teach, and suggest at least

the above emphasized claimed features for similar reasons discussed above regarding claim

45. Thus, for at least these reasons, Applicants respectfully request that the rejection of claim 52 be withdrawn.

C.   Claim 59 is Allowable Over _Normile_

The Office Action indicates that claim 59 stands rejected under 35 U.S.C. §102(b) as allegedly being anticipated by _Normile_. Applicants respectfully traverse this rejection on the grounds that _Normile_ does not disclose, teach, or suggest all of the claimed elements. More specifically, claim 59 recites (emphasis added):

59.   A system for encrypting multi-media data flow packets, comprising:

a transceiver;

software defining functions to be performed by the system; and

a processor configured by said software to perform the steps of:

receiving a series of multi-media data flow packets;

storing the series of multi-media data flow packets in a jitter buffer;

re-sequencing the series of multi-media data flow packets into a pseudo-random order; and

transmitting each multi-media data flow packet in the re-sequenced series in the re-sequenced order.

Applicants respectfully submit that _Normile_ fails to disclose, teach, and suggest at least the above emphasized claimed features for similar reasons discussed above regarding claim 45. Thus, for at least these reasons, Applicants respectfully request that the rejection of claim 59 be withdrawn

D.   Claims 46 – 49 and 53 – 56 are Allowable Over _Normile_

The Office Action indicates that claims 46 – 49 and 53 – 56 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Normile*. Applicants respectfully traverse this rejection on the grounds that *Normile* does not disclose, teach, or suggest all of the claimed elements. More specifically, dependent claims 46 – 49 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 45. Dependent claims 53 – 56 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 52. *In re Fine*, *Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

IV.   Rejections Under 35 U.S.C. §103

A.   Claims 50 – 51, 57 – 58, and 61 – 62 are Allowable Over *Normile* and *Fink*

The Office Action indicates that claims 50 – 51, 57 – 58, and 61 – 62 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Normile* and U.S. Patent Number 6,826,684 ("*Fink*"). The addition of *Fink* does not cure the deficiencies of *Normile* as discussed above. Applicants respectfully traverse this rejection for at least the reason that *Normile* and *Fink* fail to disclose, teach, or suggest all of the elements of claims 50 – 51, 57 – 58, and 61 – 62. More specifically, dependent claims 50 – 51 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 45. Dependent claims 57 – 58 are believed to be allowable for at least the reason that they depend from allowable independent claim 52, and dependent claims 61 – 62 are believed to be allowable for at least the reason that they depend from allowable independent claim 59. *In re Fine*, *Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and Official Notice, or statements interpreted similarly, should not be considered well-known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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